Quick check of expected J/ψ trigger efficiency

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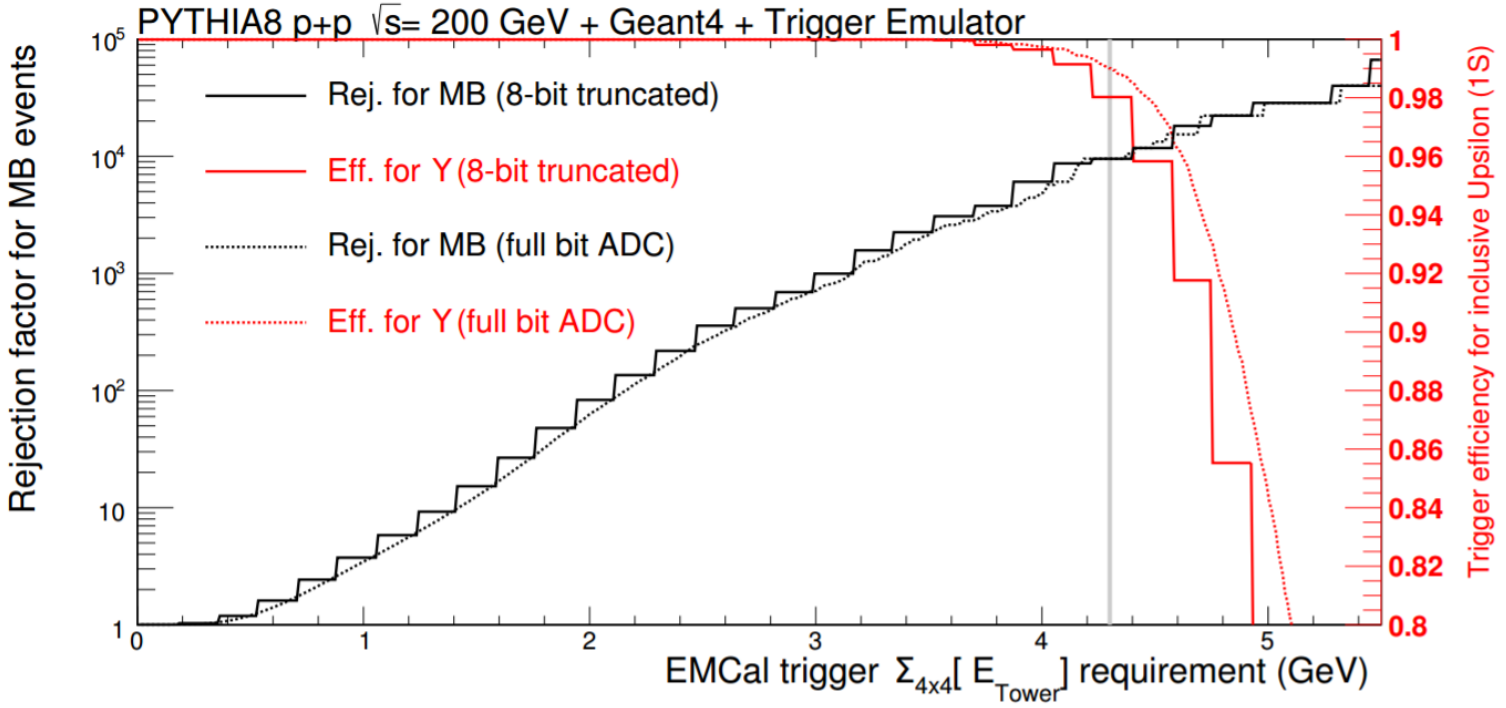
Introduction

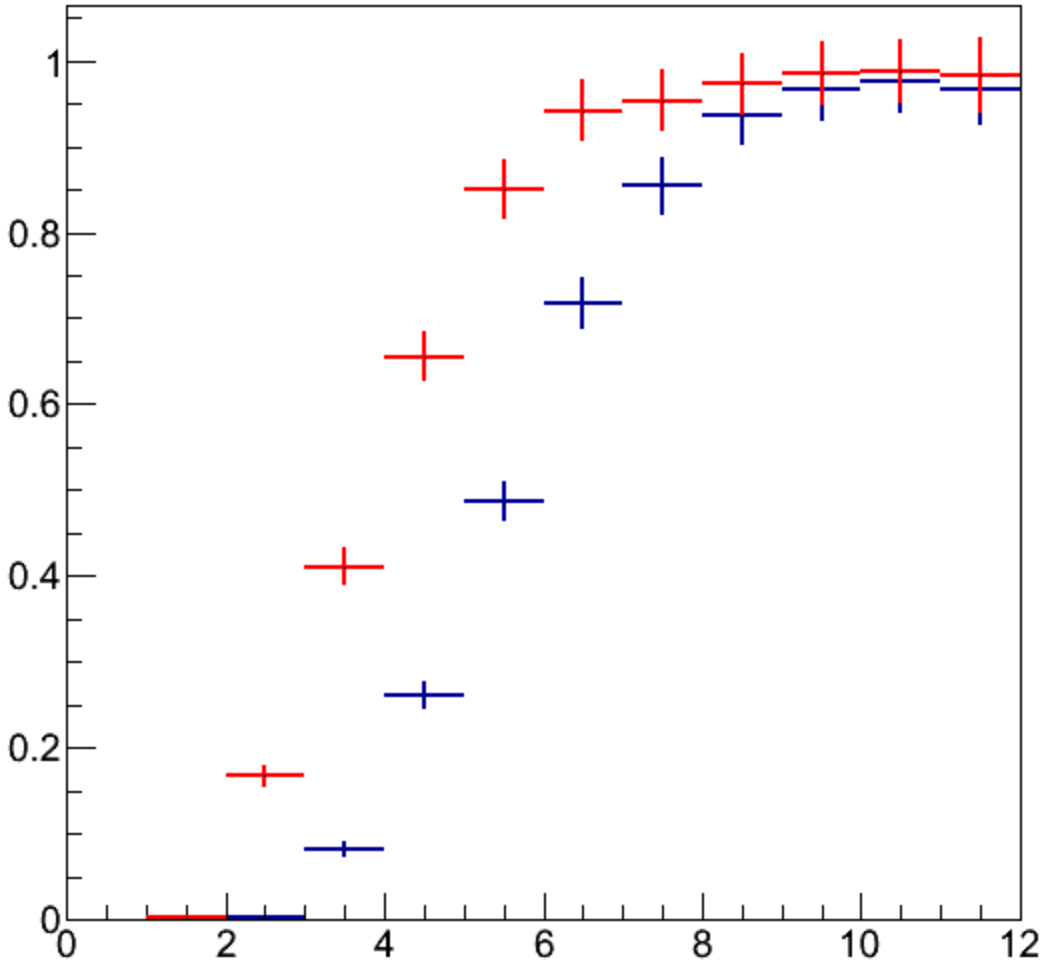
p+p running requires triggering with rather high rejection power (several thousand).

Single 4x4 CEMC tower trigger will require high threshold, and could result in very low J/ψ trigger efficiency.

Rejection power and Upsilon trigger efficiency from pre-CDR (Fig. 5.29)



J/ψ trigger "efficiency"



J/ψ generated flat in p_T, with full simulation and reconstruction.

Denominator: number of reconstructed J/ψ

Numerator: number of reconstructed J/ψ AND at least one of the clusters associated with decay electrons has energy above threshold (3 GeV or 4 GeV).

"Cluster" means energy deposit in 3x3 area around track projection to CEMC.